

Building Bridges, One Reviewer at a Time

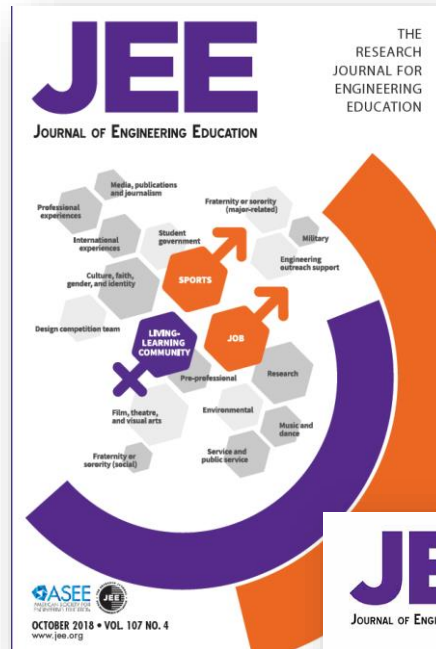
The Journal of Engineering Education
Mentored Reviewer Program

Lisa Benson, *JEE* Editor

Reflection Questions:

- What resources do you think are needed to mentor reviewers who are new to the EER community?
- How can we engage those who are at the margins of the EER community?

JEE Mission:
to cultivate,
disseminate, and
archive scholarly
research in
engineering
education



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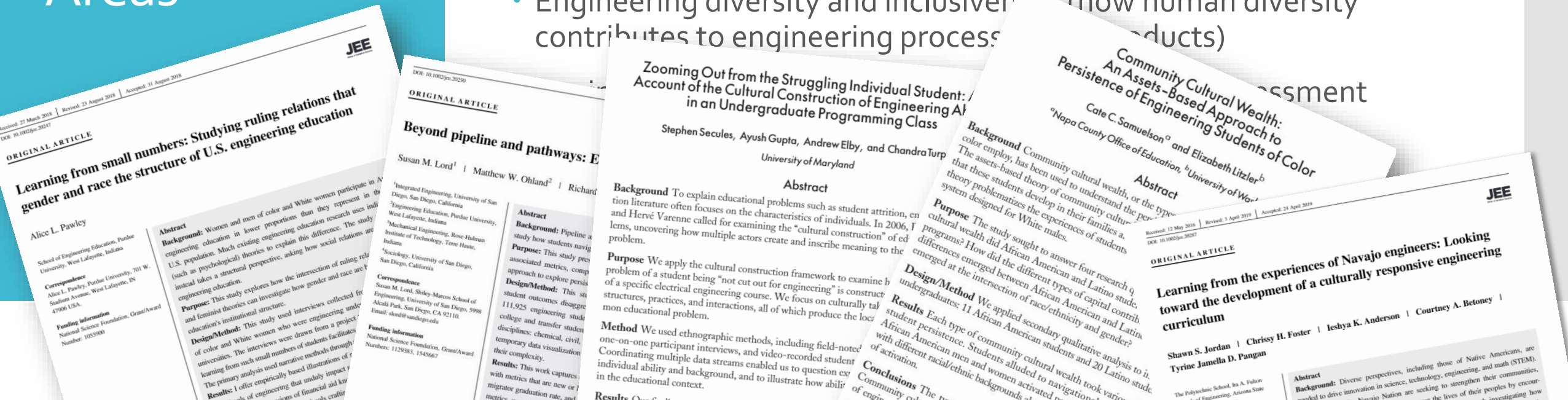
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JEE Author Guidelines

- Articles should significantly advance knowledge about engineering education, with implications for practice or research
- Articles should be...
 - ...grounded in educational theories
 - ...using robust, appropriate methodologies
 - ...attentive to quality considerations (validity and reliability, trustworthiness, generalizability)

JEE Research Areas

- Engineering epistemologies (what constitutes engineering thinking and knowledge)
- Engineering learning mechanisms (how learners develop knowledge and competencies)
- Engineering learning systems (instructional cultures and institutional practices)
- Engineering diversity and inclusiveness (how human diversity contributes to engineering processes and products)




But what
about
expectations
for reviewers?

Journal of Engineering Education

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HOME ABOUT **CONTRIBUTE**

 JOURNAL OF ENGINEERING EDUCATION

- Author Guidelines
- Submit a Manuscript ☒
- For Referees**

The *Journal of Engineering Education (JEE)* seeks to promote positive relationships with peer reviewers, even as we uphold high standards for publishable work. When you review a submitted manuscript, we ask that you adopt a collegial tone. As you identify areas for improvement in the manuscript itself, please offer constructive critiques that can help the authors advance their scholarship.

Your review has two purposes: to provide the editor and associate editor with enough information to make a decision, and to provide the authors with effective guidance to enable them to revise the manuscript for publication. These guidelines should help you structure your review to benefit both editors and authors. In addition, to help everyone develop reviewing skills, *JEE* forwards the blinded



Were you even looking?

Not the play I would have called.

Why review?

- Contribute to high quality research as a member of the professional community
- Learn about emerging research in engineering education

→ Reviewing makes you a better author and researcher

Reviewer Role Play Activity – Part 1

- Divide into two groups
- Pick a role card
- Individually:
 - Read the material for the role you selected
 - Follow instructions provided
- When time is called (20 minutes), wait for instructions

Reviewer Role Play Activity – Part 2

- Authors:
 - Pick an envelope from the “Blind Review” box
 - Read the review inside
 - Sit in (roughly) numerical order, leaving space for a reviewer.
- Reviewers:
 - Find the author with the review you wrote and sit beside them
- Together:
 - Sit face-to-face
 - Reviewers, read your review to your author
 - Authors, respond based on your role
 - Continue the conversation until time is called

Reviewer Role Play Activity – Part 3

- Debrief: What was different about the blind review experience and the face-to-face conversation?

Review of Reviewing

- Purpose of a review:
 - Provide the editors with enough information to make a decision
 - Provide the authors with effective guidance for improving their manuscript
- Structure of a review:
 - Recommendation (for editor and associate editor)
 - Summary – your understanding of what the paper is about and your overall impressions
 - Major concerns – summarize and prioritize
 - Detailed comments – can be organized by section or by priority
- Tone of a review:
 - Constructive
 - Respectful

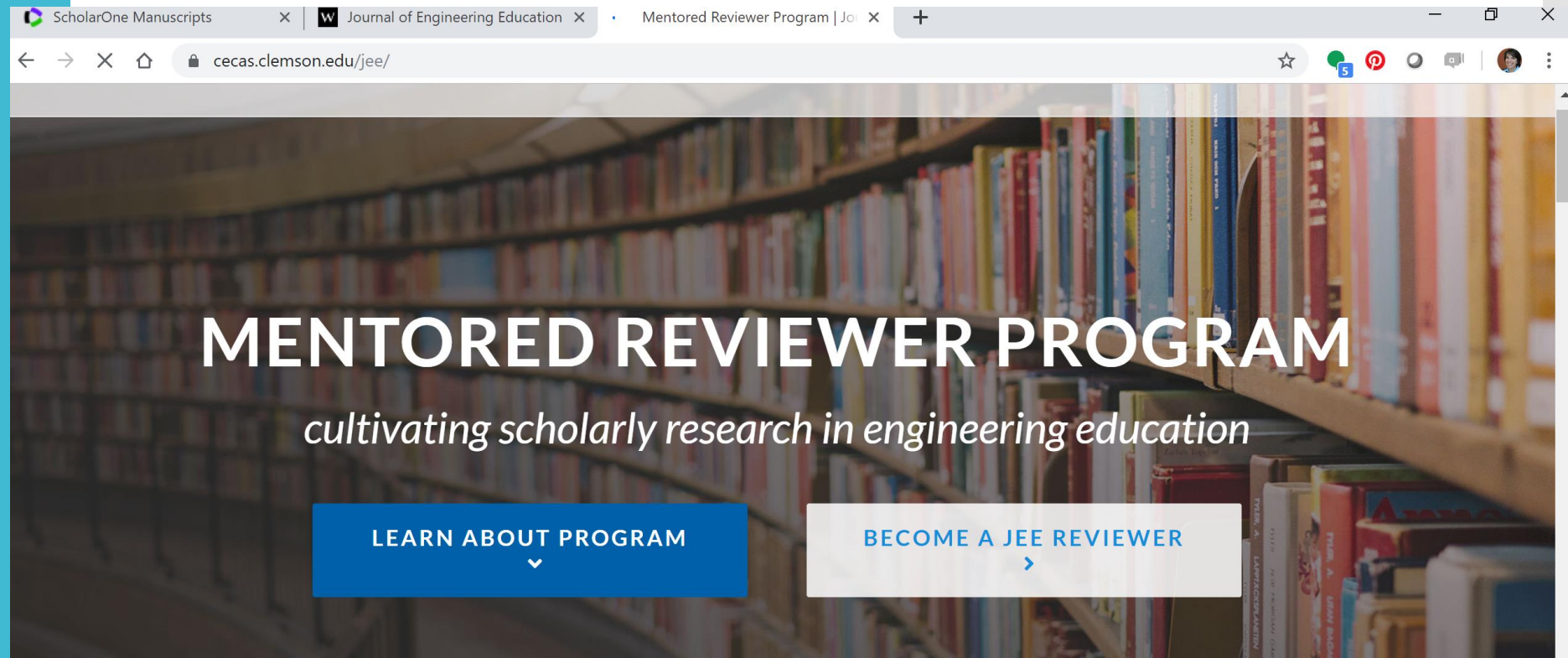
Some reviewers organize their manuscript reviews like a design review:

- I like...
- I wish...
- What if...

Some reviewers include a positionality statement:

- My areas of expertise are...
- When reviewing a paper, I look for...
- Here's how I organized my review:...

JEE's
perspective on
reviewing:
Building
bridges
between
authors and
reviewers



Building bridges between authors and reviewers: The *JEE* Mentored Reviewer Program

- Objective:
 - Coach novice reviewers through the review process with an experienced reviewer mentor
- Benefits to *JEE*:
 - Build up our reviewer base
 - Improve the quality of reviews (for editors and for authors)
 - Improve the quality of the articles published in *JEE*
- Ulterior motives <insert evil laughter>:
 - **Build up the level of expertise in the engineering education research community**
 - **Make reviewing “count” as a professional service**

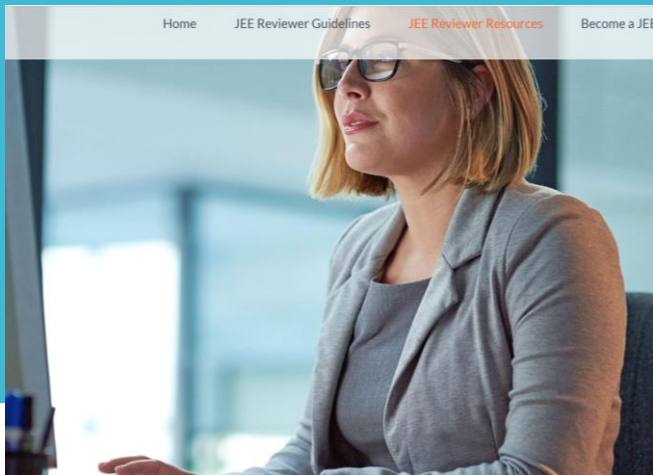


About the *JEE* Mentored Reviewer Program

- Mentees: Novice reviewers who are interested in enhancing their editorial abilities in reviewing scientific manuscripts.
 - Work with a mentor (experienced reviewer) on reviews of 3-4 manuscripts
 - Submit at least one review by the end of the program
- Mentors: Experienced *JEE* reviewers with high ratings (quality and timeliness); *JEE* “Star Reviewers”
 - Work one-on-one or in small groups with new or novice scientific reviewer(s) on 3 – 4 manuscripts over a 6-month period
 - Scaffolded support, decreasing for each subsequent review



Resources on the Mentored Reviewer Program Website



- Council of Science Editors' White Paper on Promoting Integrity in Scientific Journal Publications: Reviewer Roles and Responsibilities (2012)
- "The Role of Peer Review in Identity Development for Engineering Education Researchers" by Anne Gardner & Keith Willey, European Journal of Engineering Education (2019)
- "Considerations of Research Quality in the Review of Interpretive Engineering Education Research Manuscripts" by Joachim Walther and Nicola Sochacka (2019)
- Publons Reviewer Academy – Become a Master of Peer Review
- Wiley Reviewer Resources – Journal Reviewer Resources
- SAGE Publishing – How to Review Articles; Free Scholarly Articles Discussing Peer Review
- AERA Reviewer Resources – Resources for AERA Journal Peer Reviewers
- Science Magazine – Learning the Ropes of Peer Reviewing



We want your input!

How can we scale up
the Mentored
Reviewer Program to
reach a broader
audience?

- What resources do you think are needed to mentor reviewers who are new to the EER community?
- How can we engage those who are at the margins of the EER community?
- What resources would help YOU mentor new reviewers? How can we make those resources more widely available?



Thank you!

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Resources:

- Sign up to be a *JEE* reviewer: <https://mc.manuscriptcentral.com/jee>
- *JEE* Reviewer Guidelines: https://onlinelibrary.wiley.com/page/journal/21689830/homepage/for_referees.htm
- *JEE* Mentored Reviewer Program: <https://cecas.clemson.edu/jee/>
- Resources for reviewers: <https://cecas.clemson.edu/jee/jee-reviewer-resources/>